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REMARKS

Applicants thank the Examiner for the consideration given the present application. Claims 1 and 3-8 are pending, of which claims 1 and 7 independent.

In the Office Action, claims 1-8 are rejected under 35 U.S.C. §103(a) as being unpatentable over JP Abstract 09-213641 in view of JP Abstract 04-177881. Claim 8 is further rejected under 35 U.S.C. §102(b) as being anticipated by or, in the alternative, under 35 U.S.C. §103(a) as being obvious over JP '881. Reconsideration of these rejections is respectfully requested.

Without acquiescing to any ground of rejection, but merely to expedite prosecution, independent claims 1 and 7 are amended to incorporate the subject matter of claim 2, which is cancelled. Specifically, independent claim 1 is amended to recite a method for manufacturing a compound semiconductor epitaxial substrate comprising a step of epitaxially growing an InGaAs layer on an InP single crystal substrate or on an epitaxial layer lattice-matched to the InP single crystal substrate under particular conditions, wherein the InP single crystal substrate has a plane direction accuracy of  $\pm 0.05^\circ$  in the (100). Independent claim 7 is amended to recite a method for reducing concave defects in a compound semiconductor epitaxial substrate comprising a step of epitaxially growing an InGaAs layer on an InP single crystal substrate or on an epitaxial layer lattice-matched to the InP single-crystal substrate under particular conditions, wherein

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the InP single crystal substrate has a plane direction accuracy of  $\pm 0.05^\circ$  in the (100).

According to the presently claimed invention, the amount of impurities entrapped in the epitaxial layer can be controlled, and a compound semiconductor epitaxial substrate having few defects is obtained, which is applied in semiconductor lasers. See, e.g., page 5, lines 20-25, of the specification as filed.

In contrast to Applicants' presently claimed invention, JP '641 merely relates to a method of fabricating an abrupt hetero interface by organometallic vapor phase growth. JP '641 does not disclose an InP single crystal substrate having a plane direction accuracy of  $\pm 0.05^\circ$  in the -(100), nor does this reference disclose that a compound semiconductor epitaxial substrate having few defects is obtained.

As a result, Applicants courteously submit that it would have been *unobvious* to one of ordinary skill in the art to optimize and modify the method of JP '641 with the method of JP '881 to determine the optimum operable process parameter limitation and that this limitation could not be determined through routine experimentation.

For at least the foregoing reasons, it is respectfully submitted that independent claims 1 and 7 are allowable. Claims 3-8 are also allowable due to their dependence on allowable independent claim 1, as well as for the additional limitations provided by these claims. Withdrawal of the outstanding rejections and prompt passage to issue

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are, therefore, respectfully requested. However, if the Examiner has any questions, he is cordially invited to contact the undersigned in an effort to bring prosecution to a successful conclusion.

Applicants hereby request a three-month extension of time in which to file this response. The Commissioner is hereby authorized to charge the three-month extension fee of \$1050 to Deposit Account No. 06-1135. If in error, the Commissioner is hereby authorized to charge any required fee not otherwise paid, including application processing, extension, and extra claims fees, to said Deposit Account.

Respectfully submitted,  
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